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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/884,523

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Michael G. Coutts

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06/28/2006

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EXAMINER

DENNISON, JERRY B

ART UNIT

PAPER NUMBER

2143

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/884,523

Applicant(s)

COUTTS ET AL.

Examiner

J. Bret Dennison

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2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

RESPONSE TO AMENDMENT

1. This Action is in response to Amendment for Application Number 09/884,523 received on 16 February 2006.
2. Claims 20-40 are presented for examination.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 16 February 2006 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Regarding claim 20, Vachon disclosed a self-service terminal comprising a plurality of peripheral devices (Vachon, col. 2, lines 28-30) connected to a central processor and controlled by that central processor (Vachon, col. 2, lines 63-66), each of the peripheral devices having an independent associated control application for controlling the peripheral, the independent associated control applications being

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operable to communicate with each other independent of the central processor, whereby, in use, a peripheral device operates in response to a signal generated by the central processor or another peripheral device (Vachon, col. 1, lines 55-60, col. 2, lines 57-61, Vachon disclosed the peripheral device being able to communicate with each other independent of the central processor through the use of DMA through a bus).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20, 21, 23 34 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Ward (U.S. Patent Number 4,636,947).

5. Regarding claim 20, Ward disclosed, a self-service terminal comprising a plurality of peripheral devices connected to a central processor and controlled by that central processor, each of the peripheral devices having an independent associated control application, the independent associated control applications being operable to communicate with each other, whereby, in use, a peripheral device operates in response to a signal generated by the central processor or another peripheral device (Ward, col. 2, lines 35-60 and Fig. 2, Ward teaches a terminal in a network where each of the peripheral devices include a subsystem controller and memory for parallel

transaction event processing among other devices, Ward teaches the protocol handler tasks for controlling data formatting and timing between devices communicating in an on-line network. In order for an ATM to properly operate, the peripherals function in a ordered sequence and therefore they do operate in response to signals generated by the peripheral devices whose operation comes beforehand in the sequence).

However, Ward did not explicitly state the independent associated control applications being operable to communicate with each other independent of the central processor.

In an analogous art, Vachon disclosed peripheral devices being able to communicate with each other independent of the central processor through the use of DMA through a peripheral bus (Vachon, col. 1, lines 55-60, col. 2, lines 57-61).

Ward disclosed a data acquisition system in which multiple peripherals devices are used in transaction processing for an ATM. Vachon disclosed a data acquisition system that allows the peripherals devices to communicate with each other without the use of the central processor (Vachon, col. 1, lines 55-60).

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to incorporate the peripheral bus of Vachon into Ward to provide a set of concurrently executing program modules communicating through streams of data (Vachon, col. 1, lines 60-65) and in order to decrease the cost in terms of processor time for the processor to acquire data from the peripheral hardware (Vachon, col. 1, lines 20-28).

6. Regarding claim 21, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20, including wherein the independent associated control applications communicate with each other using a peer-to-peer communication protocol (Ward, col. 3, lines 20-25, Fig. 2).

7. Regarding claim 23, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20, including wherein the independent associated control applications communicate with each other using signals addressed directly to selected peripheral devices so that a peripheral device only communicates with those peripheral devices whose operation depends on or is connected with the state of that peripheral device (Ward, col. 3, lines 40-60, col. 4, lines 1-10, 30-35, Ward disclosed that the peripherals operate in a transaction sequence, meaning that a peripheral device operates according to the operation of peripheral devices that operate before it).

8. Regarding claim 34, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20, including wherein, in use, each of the independent associated control applications are executed on a single central processor (Ward, col. 3, lines 20-26).

9. Regarding claim 36, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20, including wherein the peripheral devices are selected

from the following peripheral devices: user interface, card reader, receipt printer, cash dispenser, and a bar code scanner (Ward, Fig. 2, 96).

10. Claims 22, 24-33, 35 and 37-40, 55-74, and 78-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward and Vachon and further in view of Kraslavsky et al. (U.S. Patent Number 5,537,626).

11. Regarding claim 22, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein the independent associated control applications communicate with each other using broadcast signals in order to communicate a present state of the peripheral devices. Kraslavsky disclosed communication links that enable peripheral devices of a terminal to communicate with each other through broadcasting (Kraslavsky, col. 14, lines 5-22). It would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate the communication links of Kraslavsky into Ward and Vachon in order to enable the peripheral devices of a terminal to communicate with one another, eliminating the need to use the Peripheral Control Unit.

12. Regarding claim 24, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein an independent associated control application that operates in response to a signal communicated from another peripheral device acknowledges receipt of that signal. Kraslavsky disclosed

peripheral devices responding to broadcast signals (Kraslavsky, col. 14, lines 5-15).

See motivation above.

13. Regarding claim 25, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20, including wherein each independent associated control application is operable to identify any failed peripheral device that does not acknowledge receipt of a signal, and to communicate the functional state of that failed peripheral device to other independent associated control applications (Kraslavsky, col. 14, lines 5-15). See motivation above.

14. Regarding claim 26, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein each peripheral device uses a registry for maintaining a record of the functioning peripheral devices in the terminal. Kraslavsky disclosed keeping statistics and a log of the devices (Kraslavsky, col. 14, lines 5-15). See motivation above.

15. Regarding claim 27, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein the independent associated control applications implement a team building process for indicating their availability. Kraslavsky disclosed peripheral devices indicating availability (Kraslavsky, col. 14, lines 5-15). See motivation above.

16. Regarding claim 28, Ward, Vachon and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 27, including wherein as part of the team building process, each independent associated control application associated with an available peripheral device transmits a start-up signal (Kraslavsky, col. 14, lines 5-15). See motivation above.

17. Regarding claim 29, Ward, Vachon and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 28, including wherein the start-up signal includes an identifier for the peripheral device being initialized and an address at which the peripheral device receives signals (Kraslavsky, col. 14, lines 5-15). See motivation above.

18. Regarding claim 30, Ward, Vachon and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 29, including wherein the start-up signal is broadcast to other peripheral devices (Kraslavsky, col. 14, lines 5-15). See motivation above.

19. Regarding claim 31, Ward, Vachon and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 30, including wherein the start-up signal is communicated directly to predetermined addresses that correspond to other peripheral devices (Kraslavsky, col. 14, lines 5-15, col. 17, lines 30-45). See motivation above.

20. Regarding claim 32, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein the independent associated control application associated with each peripheral devices creates a functional group registry comprising the addresses and identity of each peripheral device that has sent a startup signal. Kraslavsky disclosed logging device information from startup signals received (Kraslavsky, col. 14, lines 5-15). See motivation above.

21. Regarding claim 33, Ward, Vachon and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 32, including wherein each independent associated control application transmits a shut-down signal when its peripheral device is no longer able to operate properly; each independent associated control application being operable to modify its functional group registry in response to a shut-down signal from another peripheral device to indicate the removal of that peripheral device from operation (Kraslavsky, col. 14, lines 5-15, 30-45).

22. Regarding claim 35, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein, in use, each of the independent associated control applications is executed on a processor within its associated peripheral. Kraslavsky disclosed a printer containing its own processor and running applications (Kraslavsky, col. 14, lines 5-45).

23. Claims 37-40 include limitations similar to the limitations found in claims 20-36, and are therefore rejected under the same art as claims 20-36 as being substantially similar.

Response to Amendment

Applicant's arguments and amendments filed on 16 February 2006 have been carefully considered but they are not deemed fully persuasive. Applicant's arguments are deemed moot in view of the following new grounds of rejection as explained here below, necessitated by Applicant's substantial amendment (i.e., *by incorporating new limitations into the independent claims, which will require further search and consideration*) to the claims which significantly affected the scope thereof.

Claim Interpretation

Claim 20 recites the clause, "whereby, in use, a peripheral device operates in response to signals generated by the central processor as well as another peripheral device".

Claim 37 recites the clause, "so that a peripheral device operates in response to one or more signals generated by the central processor as well as the independent associated control application of another peripheral device".

Any language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a

claim or claim limitation. See MPEP 2106, section II, subsection C for specific examples.

Applicant's arguments with respect to claims 20-40 are deemed moot in view of the following new grounds of rejection, necessitated by Applicant's amendment to the claims, which significantly affected the scope thereof.

Furthermore, as it is Applicant's right to continue to claim as broadly as possible their invention, it is also the Examiner's right to continue to interpret the claim language as broadly as possible. It is the Examiner's position that the detailed functionality that allows for Applicant's invention to overcome the prior art used in the rejection, fails to differentiate in detail how these features are unique. It is the Examiner's position that Applicant has not yet submitted claims drawn to limitations, which define the operation and apparatus of Applicant's disclosed invention in manner, which distinguishes over the prior art.

Failure for Applicant to significantly narrow definition/scope of the claims and supply arguments commensurate in scope with the claims implies the Applicant intends broad interpretation be given to the claims. The Examiner has interpreted the claims with scope parallel to the Applicant in the response and reiterates the need for the Applicant to more clearly and distinctly define the claimed invention.

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is (571) 272-3910. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

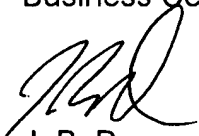
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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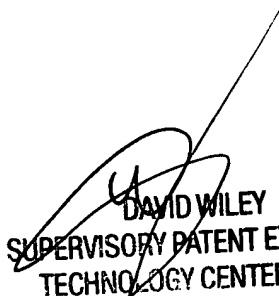
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